ABSTRACT OF THE DISCLOSURE

A system is designed to avoid problems that may occur if a physical layer misunderstands the kind of signal it receives and erroneously changes its state to a suspend state. When a node B receives an idle signal (i.e., a request cancel signal) from a node A (child node), the node B changes its state to a wait grant state where the node B waits to receive a grant signal from a node C (parent node) while keeping the request signal to the node C. The node B confirms that it has received the grant signal from the node C, and after that, changes its state from the wait grant state to a wait idle state where the node B transmits an idle signal to the node C, and waits until the grant signal from the node C changes into an idle signal. The node B confirms that it has received the idle signal from the node C, and after that, returns its state from the wait idle state to an idle state. According to this procedure, the node B is free from the situation in which it receives a grant signal from the node C in the idle state. This arrangement prevents the node B from misunderstanding that it has received a suspend signal and erroneously changing its state to a suspend state.